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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/594,100
Filing Date: June 14, 2000
Appellant(s): DEAN, MICHAEL ANTHONY

Joel Wall (Reg. No. 25,648)
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 3/26/2007 appealing from the Office action mailed 8/24/2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after non-final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,415,329	Gelman et al	7-2002

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Gelman, et al. (US 6,415,329).

As per claim 1:

Gelman, et al. disclose in a network including at least one server for communicating with at least one client, a method comprising:

receiving in a first address translator a data packet from a client, the data packet including a first destination address; **(COL.3, lines 49-54 and COL.9, lines 21-26; the client is source node 10 (col.7, lines 14-15))**

changing the first destination address to a second destination address in the first address translator; **(COL.3, lines 50-53 and COL.9, lines 19-20; the source gateway 12 translates the packet received from the client 10 (col.7, lines 23-26). The first address translator is the source (1st) gateway 12 that includes a SNAT 64A responsible for address mapping of packets, and gateway application 62A for processing the packets so they are properly routed to their destinations (col.8, lines 59-63)**

transmitting the data packet with the second destination address from the first address translator to a second address translator via the network; **(COL.9, lines 24-25; Once the first address has been modified or translated to another (2nd)**

destination address by the 1st gateway 12, the packet is transmitted via the network (col.7, lines 25-28) to another (2nd) gateway 16.)

receiving in the second address translator the data packet with the second destination address transmitted via the network **(COL.4, lines 46-51 and COL.10, lines 9-13; the second address translator is the destination (2nd) gateway that includes the SNAT 64B and gateway application 62A (col.7, lines 20-21).)**

translating the second destination address back to the first destination address in the second address translator; and **(COL.3, lines 59-62 and COL.9, lines 29-30; the received packet includes the 2nd destination address is translated back to the original 1st address at the 2nd gateway 16 (col.10, lines 14-16).)**

forwarding the data packet from the second address translator to the server using the first destination address. **(COL.3, lines 44-48 and COL.10, lines 12-16; the packet is forwarded to destination node 18 (col.8, lines 51-53 and col.10, lines 9-16). The destination node 18 refers to a server (col.7, lines 35-38).)**

As per claim 2: **See COL.4, lines 63-65 and COL.15, lines 5-6;** discussing encrypting the second destination address before transmitting the data packet.

As per claim 3: **See COL.4, lines 63-65;** discussing decrypting the second destination address before translating the second destination address.

As per claim 4: **See COL.17, lines 28-36 and COL.18, lines 13-22 and lines 34-50;** discussing mapping the first destination address to the second destination address using a mapping algorithm.

As per claim 5: **See COL.17, lines 28-36 and COL.18, lines 13-22 and lines 34-50;** discussing mapping the first port information to second port information.

As per claim 6: **See COL.3, lines 59-62 and COL.9, lines 29-30;** discussing translating the second port information back to the first port information.

As per claim 7: **See COL.17, lines 32-67 and COL.20, lines 8-14;** discussing determining whether the first destination address is included in a set of predetermined addresses before changing the first destination address.

As per claim 8: **See COL.17, lines 28-36 and COL.18, lines 13-22 and lines 34-50;** discusses determining whether the second destination address is included in a set of predetermined addresses before translating the second destination address.

As per claim 9: **See COL.17, lines 32-67;** discusses determining whether to change the first destination address based on a current time and whether the first address is in a set of predetermined addresses (col.7, lines 4-5 and col.12, lines 53-65).

As per claim 10: **See COL.17, lines 32-67 and COL.18, lines 13-22;** discusses determining whether to translate the second destination address based on the time and whether the second address is in a set of predetermined address (col.12, lines 53-65).

As per claim 11:

Gelman discloses a system for mapping destination information comprising:

a memory configured to store a mapping algorithm; **(COL.17, lines 28-36 and COL.18, lines 13-22 and lines 34-50)**

a processor configured to:

receive in a first address translator a data packet that includes a first destination address, the first destination address representing a real destination address, **(COL.3, lines 49-54 and COL.9, lines 21-26; the client is source node 10 (col.7, lines 14-15))**

changing the first destination address to a second destination address in the first address translator **(COL.3, lines 50-53 and COL.9, lines 19-20)** using the mapping algorithm; and **(COL.17, lines 28-36 and COL.18, lines 13-22 and lines 34-50; the source gateway 12 translates the packet received from the client 10 (col.7, lines 23-26). The first address translator is the source (1st) gateway 12 that includes a SNAT 64A responsible for address mapping of packets, and gateway application 62A for processing the packets so they are properly routed to their destinations (col.8, lines 59-63)**

transmit the data packet with the second destination address **(COL.3, lines 34-38)** to a second address translator. **(COL.4, lines 46-51 and COL.10, lines 9-11) (COL.9, lines 24-25; Once the first address has been modified or translated to another (2nd) destination address by the 1st gateway 12, the packet is transmitted via the network (col.7,**

lines 25-28) to another (2nd) gateway 16 which is the 2nd address translator.)

As per claim 12: See COL.4, lines 63-65 and COL.15, lines 5-6; discusses encrypting the second destination address before transmitting the data packet.

As per claim 13: See COL.17, lines 28-36 and COL.18, lines 13-22 and lines 34-50; discusses mapping the first port information to second port information using a mapping algorithm (col.7, lines 15-50).

As per claim 14: See COL.20, lines 8-14; discusses determining whether the first destination address is included in a set of predetermined addresses before changing the first destination address.

As per claim 15: See COL.17, lines 32-67; discusses determining whether to change the first destination address based on a current time and whether the first address is in a set of predetermined addresses (col.7, lines 4-5 and 44-46).

As per claim 16:

Gelman discloses a computer-readable medium having stored thereon a plurality of sequences of instructions, when executed by the processor, causes said processor to perform the steps of:

receiving in the first address translator a data packet including a first destination address, the first destination address representing the real destination address; **(COL.3, lines 49-54 and COL.9, lines 21-26; the client is source node 10 (col.7, lines 14-15))**

changing the first destination address to a second destination address in the first address translator **(COL.3, lines 50-53 and COL.9, lines 19-20)** using a mapping algorithm; and **(col.17, lines 29-39 and col.19, lines 26-30; the source gateway 12 translates the packet received from the client 10 (col.7, lines 23-26). The first address translator is the source (1st) gateway 12 that includes a SNAT 64A responsible for address mapping of packets, and gateway application 62A for processing the packets so they are properly routed to their destinations (col.8, lines 59-63)**

transmitting the data packet with the second destination address from the first address translator to second address translator. **(COL.9, lines 24-25; Once the first address has been modified or translated to another (2nd) destination address by the 1st gateway 12, the packet is transmitted via the network (col.7, lines 25-28) to another (2nd) gateway 16.)**

As per claim 17: See COL.4, lines 63-65 and COL.15, lines 5-6; discussing encrypting the second destination address before transmitting the data packet.

As per claim 18: See COL.17, lines 28-36 and COL.18, lines 13-22 and lines 34-50; discussing mapping the first port information to second port information.

As per claim 19: See COL.17, lines 32-67 and COL.20, lines 8-14; discusses determining whether the first destination address is included in a set of predetermined addresses before changing the first destination address.

As per claim 20: See COL.17, lines 32-67 and COL.18, lines 13-22; discusses determining whether to translate the second destination address based on the time and whether the second address is in a set of predetermined address (col.12, lines 53-65).

As per claim 21:

Gelman discloses a system for mapping destination information comprising:

a memory configured to store a mapping algorithm; **(COL.17, lines 28-36 and COL.18, lines 13-22 and lines 34-50)**

a processor configured to:

receive in a first address translator a data packet that includes a first destination address, the first destination address representing a real destination address; **(COL.3, lines 49-54 and COL.9, lines 21-26; the client is source node 10 (col.7, lines 14-15))**

translate in the second address translator the first destination address to a second destination address using the translation algorithm, the second destination address representing a real destination address, and **(COL.4, lines 46-51 and COL.10, lines 9-13; the second address translator is the destination (2nd) gateway that includes the SNAT 64B and gateway application 62A (col.7, lines 20-21).)**

forward the data packet with the second destination address using the second destination address. **(COL.4, lines 46-51 and COL.10, lines 9-11)**

As per claim 22: See COL.4, lines 63-65; discussing decrypting the mapped destination address information concurrently with the translating.

As per claim 23: See COL.3, lines 59-62 and COL.9, lines 29-30; discussing translating the first port information to second port information.

As per claim 24: See COL.17, lines 32-67 and COL.20, lines 8-14; discusses determining whether the first destination address is included in a set of predetermined addresses before translating the first destination address.

As per claim 25: See COL.17, lines 32-67; discusses determining whether to translate the first destination address based on a current time and whether the first address is in a set of predetermined addresses (col.7, lines 4-5 and 44-46).

As per claim 26:

Gelman discloses a computer-readable medium having stored thereon a plurality of sequences of instructions, when executed by the processor, cause said processor to perform the steps of:

receiving from a first address translator into a second address translator a data packet including a first destination address **(COL.3, lines 49-54 and COL.9, lines 21-26; the client is source node 10 (col.7, lines 14-15))**, first destination address representing a mapped destination address; **(COL.17, lines 28-36 and COL.18, lines 13-22 and lines 34-50)**

translating the first destination address to a second destination address back in the second address translator using the translation algorithm **(col.17, lines 29-39 and col.19, lines 26-30)**, the second destination address representing a real destination address; and **(COL.3, lines 50-53 and COL.9, lines 19-20) (COL.4, lines 46-51 and**

COL.10, lines 9-13; the second address translator is the destination (2nd) gateway that includes the SNAT 64B and gateway application 62A (col.7, lines 20-21).)

forwarding the data packet from the second address using the second destination address. **(COL.4, lines 46-51 and COL.10, lines 9-11)**

As per claim 27: See COL.4, lines 63-65; discussing decrypting the encrypted information before translating the data packet.

As per claim 28: See COL.3, lines 59-62 and COL.9, lines 29-30; discussing translating the first port information to second port information.

As per claim 29: See COL.17, lines 32-67 and COL.20, lines 8-14; discusses determining whether the first destination address is included in a set of predetermined addresses before translating the first destination address.

As per claim 30: See COL.17, lines 32-67; discusses determining whether to translate the first destination address based on a current time and whether the first address is in a set of predetermined addresses (col.7, lines 4-5 and col.12, lines 53-65).

As per claim 31:

Gelman disclose in a network including at least one server for communicating with at least one client, a method comprising:

means for receiving in a first address translator a data packet from a client, the data packet including a first destination address; **(COL.3, lines 49-54 and COL.9, lines 21-26; the client is source node 10 (col.7, lines 14-15))**

means for changing the first destination address to a second destination address in the first address translator; **(COL.3, lines 50-53 and COL.9, lines 19-20)**

means for transmitting the data packet with the second destination address from the first address translator to a second address translator via the network; **(COL.9, lines 24-25; Once the first address has been modified or translated to another (2nd) destination address by the 1st gateway 12, the packet is transmitted via the network (col.7, lines 25-28) to another (2nd) gateway 16.)**

means for receiving in the second address translator the data packet with the second destination address transmitted via the network; **(COL.4, lines 46-51 and COL.10, lines 9-13; the second address translator is the destination (2nd) gateway that includes the SNAT 64B and gateway application 62A (col.7, lines 20-21).)**

means for translating the second destination address back to the first destination address in the second address translator; and **(COL.3, lines 59-62 and COL.9, lines 29-30; the received packet includes the 2nd destination address is translated back to the original 1st address at the 2nd gateway 16 (col.10, lines 14-16).)**

means for forwarding the data packet from the second address translator to the server using the first destination address. **(COL.3, lines 44-48 and COL.10, lines 12-16; the packet is forwarded to destination node 18 (col.8, lines 51-53 and col.10, lines 9-16). The destination node 18 refers to a server (col.7, lines 35-38).)**

As per claim 32:

Gelman disclose in a network including at least one client and at least one server a system comprising:

a first address translator configured to:

receive a data packet from a client, the data packet including a first destination address wherein the first destination address represents the real destination address; **(COL.3, lines 49-54 and COL.9, lines 21-26; the client is source node 10 (col.7, lines 14-15))**

change the first destination address to a second destination address, and **(COL.3, lines 50-53 and COL.9, lines 19-20; the source gateway 12 translates the packet received from the client 10 (col.7, lines 23-26). The first address translator is the source (1st) gateway 12 that includes a SNAT 64A responsible for address mapping of packets, and gateway application 62A for processing the packets so they are properly routed to their destinations (col.8, lines 59-63)**

transmit the data packet with the second destination address via the network to a second address translator; and **(COL.9, lines 24-25; Once the first address has been modified or translated to another (2nd) destination address by the 1st gateway 12, the packet is transmitted via the network (col.7, lines 25-28) to another (2nd) gateway 16. The second address translator is the destination (2nd) gateway that includes the SNAT 64B and gateway application 62A (col.7, lines 20-21).)**

a second address translator configured to:

receive the data packet with the second destination address transmitted via the network, **(COL.4, lines 46-51 and COL.10, lines 9-13)**

translate the second destination address back to the first destination address, and **(COL.3, lines 59-62 and COL.9, lines 29-30; the received packet includes the 2nd destination address is translated back to the original 1st address at the 2nd gateway 16 (col.10, lines 14-16).)**

forward the data packet to the server using the first destination address. **(COL.3, lines 44-48 and COL.10, lines 12-16; the packet is forwarded to destination node 18 (col.8, lines 51-53 and col.10, lines 9-16). The destination node 18 refers to a server (col.7, lines 35-38).)**

As per claim 33:

Gelman the second address translator further configured to:

receive a reply data packet from the server, the reply data packet including a third destination address wherein the third destination address represents the real destination address, **(COL.22, line 66 – col.23, line 9)**

change the third destination address to a fourth destination address, **(COL.18, lines 12-22)**

transmit the reply data packet via the network; and **(col.7, lines 25-28 and COL.9, lines 24-25; the packet is transmitted via the network.)**

the second address translator further configured to:

receive the reply data packet transmitted via the network, **(COL.4, lines 46-51 and COL.10, lines 9-11)**

translate the fourth destination address back to the third destination address, and **(COL.9, lines 29-30 and COL.19, lines 26-31; the received packet includes the gateway's 16 destination address is translated back to the original source gateway's 12 address (col.10, lines 14-16).)**

forward the data packet to the server using the third destination. **(COL.3, lines 44-48 and COL.10, lines 12-16; the packet is forwarded to destination node 18 (col.8, lines 51-53 and col.10, lines 9-16). The destination node 18 refers to a server (col.7, lines 35-38).)**

(10) Response to Argument

On page 19 of the appeal brief filed, appellant presents arguments for independent claim 1 and its dependent claims (claims 2-10). Appellant argues that from the limitations recited in claim 1, appellant's data packet is transmitted "with the second destination address" from the first address translator to a second address translator. Appellant argues that from the limitations recited, the data packet is received "with the second destination address" in the second address translator. Appellant argues that the data packet referred to in the claim contains/includes as part of its "packaging" the second destination address when the data packet is transmitted from the first address translator and received by the second address translator. The examiner respectfully submits that the claimed method is broader than appellant is arguing. While appellant's specification may refer to the data packet being transmitted from the first address translator to the second address translator as including a second destination address, the language of the claim is such that the claim is not limited to just this interpretation. The examiner notes that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

The first limitation of claim 1 is "receiving in a first address translator a data packet from a client, the data packet including a first destination address". From this limitation, it is clear that the data packet at this step of the method includes as part of its "packaging" a first destination address as indicated by the language "the data packet including a first destination address. That is, there is a data field in the data packet

which indicates a "first destination address". Note that there is no requirement in the claim that the first destination address is necessarily included as part of the data packet beyond this step of the claim.

The claim then recites "changing the first destination address to a second destination address in the first address translator; transmitting the data packet with the second destination address from the first address translator to a second address translator via the network; receiving in the second address translator the data packet with the second destination address transmitted via the network...". As can clearly be seen from the quoted limitations, the claim in these steps refers to a data packet *with a second destination address*, not a data packet *including a second destination address* as appellant is arguing. One should understand that a packet that is sent from point A to point B is a packet with a having a destination address of point B or a packet "with a destination address of point B". If that packet has to go through point C to get to point B, then the packet is a packet with a destination address of C and a destination address of B. There is nothing recited in the claim which requires that the second destination address be "included" in the data packet, i.e. as a data field in the packet. The language of the claim is such that the data packet is a data packet with a second destination address.

There is no requirement for a networking system to always refer to the destination field contained in a packet to route the packet. One can initially use the destination data initially included in a packet to determine where the final destination of

the packet is, but in routing the packet from intermediate node to intermediate node, one can also refer to some sort of routing table instead.

In Gelman's invention, a data packet is sent from a first end user, i.e. client, to a second end user, i.e. the server (see at least Fig 2 and cited column 3, lines 49-54). However, as seen in Figure 2, in between the client and the server is a first/source gateway and a second/destination gateway. The first gateway is equivalent to the first address translator recited in claim 1 and the second gateway is equivalent to the second address translator recited in claim 1. Any data packets sent from the client to the server has to be routed through both the first and second gateway. Note that each gateway contains a Self Network Address Translation (SNAT) module which changes the addressing information of a packet received by the respective gateway (col 4, lines 10-20).

The office action by the previous examiner cited column 3, lines 49-54 as meeting the limitation of "receiving in a first address translator a data packet from a client, the data packet including a first destination address". This communication of a data packet from the client to the first gateway/address translator is referred to as a "first communication session" by Gelman (col 3, lines 63-67) and this first session uses a first communication protocol, which Gelman states is TCP/IP (col 4, lines 21-25). A TCP/IP data packet includes in the header of the packet both the source address and destination address of the packet, thus the first limitation recited in claim 1 is met.

As per the limitation of "changing the first destination address to a second destination address in the first address translator", the previous examiner cited columns

50-53; column 8, lines 59-63; and column 9, lines 19-20 to indicate Gelman meeting the limitation. From the cited section, one can see that addressing information of the packet is modified. Column 4, lines 10-12 and column 9, lines 7-15 show that the SNAT module in the first gateway changes the destination address of the packet from what it was, i.e. a first destination address, to the destination address of the first/source gateway application, i.e. a second destination address. Since both the SNAT module and the source gateway application are part of the protocol stack of the first gateway (Fig 2, item 52), the first destination address of the data packet has been changed from a first destination address to a second destination address in a first address translator. One should note that the final destination of the data packet is still server 18 as seen in Figure 2. However, the immediate destination of the data packet is not the first address referred to header of the TCP/IP packet any more. Instead the first destination address of the data packet is now a second address—the address of the source gateway application. The data packet is at this point a data packet with the source gateway application address as its (second) destination address.

Gelman then discloses that this data packet with the second destination address is transmitted from the first/source gateway to the second/destination gateway (col 9, lines 21-31). The cited section shows that the second/destination gateway also contains a SNAT module for changing addressing information. As such, Gelman also meets the limitations of "transmitting the data packet with the second destination address from the first address translator to a second address translator via the network

and receiving in the second address translator the data packet with the second destination address transmitted via the network".

Finally, the second/destination gateway forwards the received packet to the final destination (col 4, lines 5-9 and col 10, lines 9-13). As such, the limitations of "translating the second destination address back to the first destination address in the second address translator and forwarding the data packet from the second address translator to the server using the first destination address" is met by Gelman. Note that the first destination address must have been used by the second/destination gateway to determine where from itself the data packet is to be forwarded. Whether Gelman's invention does this by using a routing table or some other means is unimportant.

As can be seen from the above discussion, because the claim refers to a data packet "with a second destination address", one can interpret the claim such that it does more than refer to a data packet "including a second destination address" as appellant is arguing. A data packet may in fact be a data packet with multiple destination addresses, i.e. many intermediate destination addresses and a final destination address.

Appellant's arguments for the other independent claims are similar to arguments set forth for claim 1 and are traversed for similar reasons. The dependent claims were argued as being allowable for dependency on the independent claims. However, because the independent claims are not allowable, the dependent claims are also not allowable.

The examiner notes that on page 29 of the appeal brief filed that appellant remarked that it is perplexing to appellant that the previous examiner chose to view Table 5 as "merely extra information" and disagreed with appellant's explanation. The examiner assumes that the previous examiner was not persuaded by appellant's arguments and viewed Table 5 as "extra information" because appellant's arguments are based on the interpretation that one must view "data packet with a second destination address" as "data packet including a second destination address". As shown above, this is not the case. As such, appellant's arguments directed towards such an interpretation and evidence directed towards such an interpretation would not be persuasive and the evidence would be "extra information" because it is not germane to the interpretation of the claims on which the claims were rejected. The examiner assumes that the previous examiner may have interpreted the claim in a different manner than appellant and was herself confused as to why appellant was pointing to evidence which while may be relevant to one interpretation of the claims, was not relevant to the interpretation under which the claims were rejected.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Ponnoreay Pich

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